Computers and Mathematics with Applications 61 (2011) 1704

Contents lists available at ScienceDirect

Computers and Mathematics with Applications

journal homepage: www.elsevier.com/locate/camwa

Notes on "An improvement to homotopy perturbation method for solving system of linear equations"

Consider the system of linear equations

$$Au = b. \tag{1}$$

Following the procedure and from Eqs. (24) and (32) in [1], the exact solution of problem (1) is introduced to be as

$$u = u_1 = b - \alpha, \tag{2}$$

where α has be obtained from (Eq. (30) in [1])

$$A\alpha = (A - I)b$$

as (Eq. (31) in [1])

$$\alpha = (I - A^{-1})b. \tag{3}$$

If one use Eq. (3) in Eq. (2), it will conclude that

$$u = b - (I - A^{-1})b = A^{-1}b.$$

In other words, obtained result in the above mentioned paper can be summarized as follows.

The exact solution of linear system of Eq. (1) is in the form of

$$u = A^{-1}b \tag{4}$$

the results which is introduced in high school linear algebra.
Hence, this result is too trivial to pay attention as a paper for publication in 2009.

References

[1] E. Yusufoğlu, An improvement to homotopy perturbation method for solving system of linear equations, Comput. Math. Appl. 58 (2009) 2231–2235.

Jafar Biazar
Department of Mathematics, Azad Islamic University, Rasht Branch, Rasht, Iran
E-mail addresses: biazar@guilan.ac.ir, jafar.biazar@gmail.com.

Behzad Ghanbari*
Department of Mathematics, Faculty of Science, Islamic Azad University, Takestan Branch, Iran
E-mail address: b.ghanbary@yahoo.com.

22 July 2010

* Corresponding author.

doi:10.1016/j.camwa.2011.01.007